4. [AMENDED] The method of claim 2 wherein the mutant does not comprise a wild-type *chico* gene.

5. [AMENDED] The method of claim 2 wherein the Drosophila mutant comprises one wild-type *chico* gene.

8. [AMENDED] The method of claim 2 wherein the Drosophila mutant comprises at least one *chico* mutation with lacking or reduced activity compared to wild-type *chico*.

10. [AMENDED] The method of claim 2 wherein the Drosophila lacks at least one *chico* gene.

12. [AMENDED] The method of claim 2 wherein the compound is a compound for the treatment of diabetes type 2.

13. [AMENDED] The method of claim 2 wherein the alteration of the body size and/or the cell size and/or the development time and/or the lipid level is detectable in the whole animal.

14. [AMENDED] The method of claim 2 wherein the alteration of the body size and/or the cell size and/or the development time and/or the lipid level is detectable in the head region only.

17. [AMENDED] The mutant of claim 15 that does not comprise a wild-type *chico* gene.

18. [AMENDED] The mutant of claim 15 that comprises one wild-type *chico* gene.

21. [AMENDED] The mutant of claim 15 comprising at least one *chico* mutation with lacking or reduced activity compared to wild-type *chico*.

23. [AMENDED] The mutant of claim 15 lacking at least one *chico* gene.

25. [AMENDED] The mutant of claim 15 which is a fly mutant.

26. [AMENDED] The mutant of claim 15 wherein at most one wild-type *chico* gene is found in the whole body of the insect.

27. [AMENDED] The mutant of claim 15 wherein at most one wild-type *chico* gene is found in the head region of the insect only.

28. [AMENDED] Use of an insect according to claim 15 as a means in screening compounds for modulating diseases.

29. [AMENDED] Use of an insect according to claim 15 as a means for searching for mutations involved directly or indirectly in the insulin signaling pathway.

30. [AMENDED] Use according to claim 22 characterized in that the disease is diabetes type 2.

31. [AMENDED] A method for generating a mutant insect, characterized in that adult animals are treated with a mutation generating means under mutation generating conditions, that thus treated insects are crossed to wild-type or mutant insects and that viable offsprings with altered cell number, cell size, developmental time or lipid levels are cultivated under suitable conditions.

Please add the following claims:

--32. The method of claim 31 wherein the adult animals are males.

33. The method of claim 31 wherein the treated insects are crossed with *chico* mutant insects.

34. The Mutant of claim 25 which is a Drosophila mutant.--